

# **INDUSTRIAL HYGIENE INFORMATION AND REGULATORY ACTIONS SUMMARY**

## **May 2000**

### **INTRODUCTION**

This document was prepared for the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), Directorate of Occupational Health Sciences. The POC at the USACHPPM is Mrs. Sandra Monk; Program Manager; Industrial Hygiene Management Program; DSN: 584-2439; COM: 410. 436.2439; cc:Mail:

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This document summarizes information and regulatory actions that are relevant for Army Industrial Hygiene Program personnel. We distribute this summary in electronic form only. Please make it available to your staff if they do not have direct access to an electronic copy. A copy is also posted on the Army IH Program Home Page (<http://chppm-www.apgea.army.mil/Armyih>). If you would like to be added to the electronic mailing list or if your e-mail address changes, please contact Brenda Wolbert, e-mail: [Brenda.Wolbert@apg.amedd.army.mil](mailto:Brenda.Wolbert@apg.amedd.army.mil); or call her at DSN: 584-2439; COM: 410.436.2439; fax: 410.436.8795.

At a minimum; we review the following publications in preparing this summary: [AIHA Journal](#); the [Synergist](#); [Today](#) (ACGIH's Newsletter); The [AAIH Newsletter](#); OSHA Week; the [Federal Register](#); BNA OSHA Reporter; [Applied Occupational and Environmental Hygiene](#); The [Journal of Occupational and Environmental Medicine](#); The [Journal of Environmental Health](#); [Professional Safety](#); Safety and Health, [Occupational Hazards](#); [Occupational Health and Safety](#); and [Industrial Safety and Hygiene News](#). We also gather information from a variety of sources on the Internet using the Army IH Program Home Page as our gateway. (<http://chppm-www.apgea.army.mil/Armyih>).

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Position: Industrial Hygiene Technician, Fort Hood, TX

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## **REGULATORY ACTIONS**

## **OSHA Standards**

None found of concern to Army IHs

## **OSHA Proposed Rules**

None found of concern to Army IHs

## **OSHA ACTIVITIES**

### **OSHA Priorities For FY 2001**

OSHA chief Charles Jeffress recently outlined top priorities to Congress for the next fiscal year, beginning Oct. 1. Except for standards setting, all of them require budget approval by Congress.

- ?? Have a compliance assistance specialist in each local OSHA office
- ?? Have an ergonomics expert in each of OSHA's ten regions
- ?? Increase the number of on-site consultation visits by 3,200 in FY 2001, bringing the total to 30,700
- ?? Set up satellite tele-training for compliance officers and consultation staff
- ?? Conduct approximately 4,000 site-specific inspections in FY 2001
- ?? Hire 63 additional compliance officers
- ?? Survey current industry safety practices, and support a NIOSH study on high-risk workers, to prioritize standards-setting
- ?? OSHA's priority standards are ergonomics, revision of the recordkeeping rule, and occupational exposure to tuberculosis

### **OSHA Hints at Final Agenda for Remainder of 2000**

In recent meetings with OSHA personnel, AIHA has received a glimpse of what the Agency hopes to accomplish during the remainder of 2000 and the Clinton Administration. Depending on whom you talk to, only time will tell if the OSHA agenda is realized.

#### **Ergonomics**

First on the list is to have the Ergonomics proposal finalized by the end of the year. With public hearings concluded in mid-May, the next step for OSHA will be to review the thousands of comments, make changes to the proposal, submit it to the Office of Management and Budget for review, and then announce a final standard.

Can this take place before the end of the year? Probably, if everything falls into place and OSHA determines that few changes will be made to the proposal. Will the standard take effect? Probably not, with lawsuits expected to be filed to block the standard. Will Congress step in and block the standard? Doubtful at this point in time. Even if Congress wishes to

place additional restrictions on OSHA or the proposal, the President would likely veto any attempt and it would be difficult for Congress to override such a veto.

This does not mean Congress has not been doing everything it can to put up roadblocks on the proposal. Several hearings have recently been held to discuss the ergonomics proposal. The purpose of these hearings was to show the “misguided attempt by OSHA to impose an ergonomics standard on business in the United States”. It is likely several more will be held before this issue is put to rest.

As for AIHA’s input in the process, AIHA provided testimony at the public hearing on the ergonomic proposal in Washington, DC on May 10. AIHA’s position statement can be found on AIHA’s web page. AIHA maintains our support for an ergonomics standard and has made several recommendations on how the proposal could be made more acceptable to all parties.

### Recordkeeping

The second issue being touted by OSHA as a major priority before the end of 2000 is final implementation of the recordkeeping standard. OSHA maintains that it will have this rule out by July 1 in order for the states to be able to implement the new rule on January 1 2001. States require approximately six months advance notice in order to bring state laws in compliance with the new standard.

Will the recordkeeping rule make the July 1 deadline? Again, it depends on whom you are talking to. OSHA insiders say the rule will be ready to go July 1. However, the rule is still delayed within the Department of Labor and has not been sent to the Office of Management and Budget for review. Under normal circumstances, OMB requires up to 90 days for a review, which does not afford OSHA enough time to have the standard in effect by July 1. It looks as though it will be difficult to have the new recordkeeping standard in place by January 1 next year.

### Other OSHA Priorities

The other three issues on the radar screen at OSHA are the steel erection standard, the employer-pay-for-personal protective equipment rule, and the TB standard. OSHA insiders claim that if time allows, these three issues will receive some consideration within the Agency.

### **OSHA to Increase Inspection of Postal Service Facilities**

OSHA plans to continue to increase the number of inspections of Postal Service facilities. They conducted 531 inspections in FY 99 primarily in response to employee complaints. OSHA has not targeted Postal Service facilities because they do not have yet have the injury and illness rate data on the Postal Service.

### **OSHA and NIOSH Budgets Moving Forward**

In an unexpected move by Congress, the Labor-HHS-Education spending bill is already being finalized for fiscal year 2001. In past years, this spending bill is usually the last of the

13 spending bills to be considered and receives much scrutiny. This year, Congress decided to turn the tables and take up this bill at the beginning of the budget process.

So where do things stand? First, a look at OSHA. In FY2000, OSHA received \$382 million in spending authority. For FY2001, the President requested an increase in spending authority of \$44.4 million, bringing the total spending request to \$426 million.

The House Appropriations Subcommittee has completed their work on the bill and did not provide OSHA with any additional spending authority, keeping the OSHA budget at \$382 million. The bill now goes to the full House Appropriations Committee for final consideration.

The Senate was much more generous in their discussions concerning the OSHA budget. The Senate Appropriations Subcommittee approved the President's OSHA funding request and the full Appropriations Committee also signed off on the request. The Senate Committee mark-up shows OSHA receiving the \$44.4 million request for a total FY2001 budget of \$426 million.

If this year follows past years, look for the final bill and conference committee negotiations to provide OSHA with the \$426 million figure.

As for NIOSH, the story is nearly the same. In FY2000, NIOSH received \$215 million in spending authority. For FY2001, the President requested an increase in spending authority of \$5 million, bringing the total spending request to \$220 million.

The House Appropriations Subcommittee has completed their work on the bill and did not provide NIOSH with any additional spending authority, keeping the NIOSH budget at around \$215 million. The bill now goes to the full House Appropriations Committee for final consideration.

The Senate was much more generous in their discussions concerning the NIOSH budget. The Senate Appropriations Subcommittee and the full Appropriations Committee not only approved the President's \$5 million funding request, but approved an additional \$3 million. The Senate Committee mark-up shows NIOSH receiving a total FY2001 budget of \$222.8 million.

If this year follows past years, look for the final bill and conference committee negotiations to provide NIOSH with the \$222+ million figure.

AIHA sent a letter to Congress in support of the OSHA budget and requested increased spending at NIOSH.

### **Congress Still has Telecommuting Issue on the Table**

The issue of telecommuters and OSHA inspections just will not go away. Despite OSHA's directive that it has no intention of inspecting home workplaces, Congress has introduced more than a half dozen legislative measures to make the sure the Agency does not get involved in the issue in the future. While most of these measures stand little chance of ever

seeing the light of day, several are co-sponsored by Democrat and Republican lawmakers and may be considered before the end of the year.

Adding to this possibility is the fact that the Republicans have recently announced their "contract for 2000", a list of campaign issues dealing with high technology. House Majority Leader Dick Armey has been quoted as saying that "later this year, we will move a bill through the House protecting stay at home workers from government interference. Cutting edge technology has made it possible for millions of moms and dads to work from home and balance the pressures of family and career. We should preserve that freedom that technology has made possible. We owe it to our children to promote freedom in the new economy."

AIHA government affairs still believes this issue will be one of the final issues the 106<sup>th</sup> Congress will debate before the fall elections.

### **OSHA Holds CARE Meeting In Orlando**

Preventing falls and electrocutions was the latest emphasis of a special OSHA program to reduce the number of construction fatalities in Florida.

The new fall and electrocution focus of the agency's Construction Accident Reduction Emphasis Program (CARE) was explained at a meeting yesterday in Orlando.

"Too many Florida construction workers are killed on the job," said Cindy A. Coe, OSHA regional administrator for the Southeast. "And too many of the deaths are the result of falls or contact with overhead power lines."

The CARE program follows extensive outreach activities with an equally extensive inspection and enforcement effort.

During the past two years, the three OSHA area offices in Florida -- Jacksonville, Ft. Lauderdale and Tampa -- investigated 57 fatal falls and 23 fatalities from electrocutions, 13 of which involved overhead power lines.

Statewide, in 1999, 26 construction workers lost their lives from falls and eight construction employees were electrocuted. These two hazards accounted for 63 percent of the total construction fatalities in 1999.

After the first year of the CARE program's enforcement and outreach activities, Florida reversed its alarming rise in construction fatalities.

With the addition this year of the two local emphasis programs, OSHA hopes to reduce worker deaths in the state.

Partnerships between OSHA and the Florida safety and health community are expected to curb deaths further at Florida construction sites.

On April 18, JEA, the Florida Department of Labor-Division of Safety, and OSHA signed a formal partnership agreement which helps each organization to protect workers more effectively.

JEA has agreed to hold contractors and subcontractors at all JEA job sites to tight safety and health guidelines.

OSHA also expects to enter into a partnership with South Florida Construction Safety and Health Inc., a non-profit organization dedicated to improving workplace safety and health conditions for employees.

The partnership will consist of representatives from contractor and subcontractor associations, labor organizations, trade associations, safety associations, local universities and insurers.

For more information about CARE projects or about safety and health in the construction industry, contact one of the three Florida OSHA offices: Jacksonville (904) 232-2895, Ft. Lauderdale (954) 424-0242, or Tampa (813) 626-1177

### **Ergonomics Hearings Return to Washington D. C.**

Approximately 800 witnesses have testified on a controversial federal ergonomics standard since hearings began March 13.

By the time the scheduled testimony is over in the second week of May, OSHA anticipates hearing from an estimated 250 more witnesses, bringing the total to 1,050. Since the hearings began, there have been a number of changes in the schedule and some people who were scheduled to testify have dropped out.

Following an initial four weeks of testimony in Washington, D.C., OSHA took its ergonomics hearings on the road to Chicago and Portland, Ore. in April and May.

Although there have been some requests to bring back OSHA experts to appear at additional hearings, no further hearings have been scheduled and they not anticipate that any will be.

Among the requests for further hearings was one by the National Coalition on Ergonomics, which asked Labor Secretary Alexis Herman for a formal hearing "Involving a true debate between scientists on both sides of the issue." The coalition suggested that the debate take place in Dallas or another city in the South or Southwest. The group also complained that the current hearing format is not working and that there has been no debate on the rule among medical experts, epidemiologists, biostatisticians, or economists.

The final week of hearings in Washington will take place in room N-3437 of the Labor Department. After the hearings close, there will be a 90-day post-hearing comment period. Written follow-up to testimony will be accepted by the agency during the first 45 days. The next 45 days will be open to receive legal briefs covering issues such as the agency's process and the timing of the hearings. Briefs also may cover other issues such as whether OSHA has the authority to issue the rule as a health standard instead of a safety standard, and whether it has the authority to ask for worker removal protection.

OSHA published its proposed ergonomics standard Nov. 23, 1999. The federal rule would require employers in manual handling and manufacturing to implement an ergonomics program in their workplaces. The provisions of the standard would be triggered in any



workplace so long as one musculoskeletal disorder is reported. The proposed rule does not apply to agriculture, maritime operations, or construction.

### **Jeffress' Testimony? MSD Science is Sound**

Jeffress testified before the House Subcommittee on Regulatory Reform. He said OSHA's proposed ergonomics standard is based on sound science and would prevent about 3 million work-related injuries over 10 years and save \$9.1 billion each year. The nation currently spends \$15-\$20 billion each year for the 600,000 injuries serious enough to cause workers to miss work. Jeffress contends good ergonomics is good economics and many solutions to ergonomic problems are easy and inexpensive to implement. Jeffress went on to discuss that OSHA has made many changes to the proposed standard based on public comment and the public has not taken advantage of all of the comment periods provided. Finally, Jeffress stated that OSHA plans to publish the final standard by the end of the fiscal year.

### **Grandfather Clause, Quick Fix Options Designed to Aid Employer Compliance**

Gary Orr, an OSHA ergonomist, defended OSHA's controversial ergonomics proposal, saying it has included a litany of flexible provisions to ease employer compliance. He said OSHA is reviewing the proposal's grandfather clause and other provisions for potential changes before issuing a final rule in December. "We want to build flexibility" into the rulemaking, Orr said. "We didn't want it to be one size fits all – even though folds tell us all the time that it's one size fits all," he said.

The proposal, issued in November 1999 and set for final publication by the end of 200, would grandfather employers' existing ergonomics programs and allow companies to offer "quick fix" solutions to address specific hazards as an alternative to implementing a full-blown ergonomics program.

The philosophy underpinning the standard is OSHA's belief that any ergonomics regulation should ensure that employers address musculoskeletal disorders quickly once they occur. That approach eases compliance burdens and encourages employers to work to address hazards at a time when OSHA's scarce resources make it difficult for the agency to get to the work sites under its jurisdiction.

"You think OSHA is everywhere, where if someone sneezes OSHA knows about it, but we have about 1,000 inspectors and 6 million sites to regulate. In most cases we don't see you in a lifetime," he said.

Under the proposed rule's grandfather clause, OSHA would consider an employer in compliance with the rule if it had already implemented its own ergonomics program to address musculoskeletal hazards. However, the employer's program would have to include the broad elements of OSHA's standard, such as provisions for employee participation and steps for analyzing and fixing job hazards.

"If your program is up and running and its effective" it would be considered by OSHA to be in compliance, he said. "If you're putting in controls, you're reducing musculoskeletal disorder, you're reducing the number of jobs with hazards."

Many employers that have commented on the OSHA proposal have complained that the grandfather clause includes so many caveats that it provides no real alternative to complying with the actual standard. Orr said OSHA is reviewing the clause to ensure that it provides a meaningful alternative for employers with existing programs.

OSHA wants to ensure that employers with good programs have a way to come into compliance, while those with just a “façade” of a program would not be able to gain an exemption.

One of the more unusual approaches in the proposal is the use of a “trigger” that extends coverage to many employers only after they record a single ergonomics related case. A recordable injury is one that is deemed work-related and must be recorded on the OSHA log.

“In most OSHA rules we don’t wait until something happens to act,” Orr said. Historically, agency regulations are designed to prevent injuries and illnesses before they occur. “But because musculoskeletal disorders are different, we felt the trigger approach would not only be appropriate for what we’re doing but dovetail very well with what industry was currently doing,” he said. The job hazard analysis section of the proposal, require employers to analyze the specific safety hazards that appear to contribute to ergonomic injuries.

OSHA included language that would allow employers to take into account contributing factors that might not be job-related, such as the physical attributes of an employee and how the worker fits in a workstation. However, if the employer concludes that there are any number of employees doing the same job and that those workers face similar hazards, the employer must address the hazards of all those jobs.

### **Standardization, Advancement Key Goals For OSHA Training Institute**

The top priority for the Occupational Safety and Health Administration’s Training Institute (OTI) this year will be to implement ways to standardize and advance its training programs. Inconsistent standard interpretations by compliance officers have been observed throughout the regions.

The consistency of interpretations will, however, vary among the OSHA state plan states because state standards can be more stringent than federal standards. In addition to standardization, OTI is also striving to stay abreast of new training methods. The agency is requesting \$2.5 million to modernize classroom training through World Wide Web-based programs and distance learning.

Plans for the distance learning initiative include hiring a program with government agencies. OTI will be working on a web-based training program with the Federal Aviation Administration and the Internal Revenue Service and will also be piloting with the U.S. Air Force to conduct a satellite broadcast on confined space entry.

The new priorities set by OTI will help to assuage traveling costs concerns. Distance-based learning will be welcomed because it will not only save money on traveling but it will help keep compliance officers on site.

OTI is increasingly engaging in third party certifications for safety and health trainers. Last year, it trained 10,000 safety and health instructors. The institute also issued more than 175,000 OSHA 10-hour cards—which verify OSHA training—were issued. The figures are not truly reflective of the number of trainers that have gone through OSHA training courses because many private employers do not issue the OSHA cards. The construction industry is the biggest proponent of the cards and requires them in most cases as a condition of employment before a worker comes on a work site.

This year OTI will be offering several new specialty courses, according to OSHA Training courses for the health care industry will be available along with courses for nursing home professionals due to an agency effort to increase inspections in the nursing home industry. Regarding OSHA's bloodborne pathogen directive, OTI conducted two sessions in Atlanta in February and is considering holding more later in the year, according to an OSHA training update document.

OTI will be holding an intensive two-three week course in ergonomics later this year. Training for recordkeeping will be developed as soon as the new rule is approved. Electrical power generation and distribution will be a new course offered in fiscal year 2001.

A new registration system for incoming students is also in the works. The fundamentals of the program have been established, but a number of issues remain to be resolved with regard to distance learning. They include connectivity, the integration of servers, and e-mail addresses. OSHA hopes to resolve those details by the end of the summer.

To accommodate OTI's new goals and plans, OSHA is considering relocating the institute because the current Des Plaines facility no longer meets its needs. The relocation plans are scheduled to take place in early fiscal 2001. However, the facility would remain in the Des Plaines general area where it has been for the last 20 years.

## **ACTIONS IN CONGRESS IMPACTING OSHA**

### **AIHA Summary of Safety and Health Legislation in the Congress**

AIHA publishes information periodically on the status of bills in the Congress that are of interest to Safety and Health professionals. Their summary is presented at the end of this regulatory summary.

### **Senator Critical of OSHA Ergonomics Study**

Sen. Mike Enzi, R-Wyo., recently wrote a letter to OSHA Administrator Charles N. Jeffress, asking that the agency postpone its July 7 ergonomics rule hearing and provide for a longer comment period on the impact of the rule on the U.S. Postal Service, state and local governments and railroad workers.

Enzi's letter expressed his "shock" and "disappointment" in OSHA's recently published analysis of the impact of its proposed ergonomics program standard on state and local governments in state-plan states, railroads and the U.S. Postal Service.

The senator said he was dismayed by the slow release of this analysis and OSHA was adding insult to injury.

"The fact that OSHA neglected to perform economic analyses for such significant sectors, like the U.S. Postal Service, at the beginning of the process is yet another indication that OSHA has already made up its mind about the proposed standard and is trying to push it through without sufficient consideration," he wrote to Jeffress.

Enzi is concerned that if OSHA continues to forge recklessly ahead with its proposed standard, the final product will be sloppy and not only fail to advance worker health and safety, but threaten the visibility of businesses across the country.

Enzi sponsored a bill two years ago that brought the Postal Service under the OSH Act and is particularly concerned about the threat that OSHA could subject it to the "most onerous rule ever drafted," without giving the Postal Service an adequate opportunity to examine and comment on its cost.

The Postal Service wrote OSHA on Dec. 22, 1999, explaining the difficulty of examining the rule without OSHA's analysis.

In asking Jeffress to give more time for interested parties to comment on the rule, Enzi pointed out that it took OSHA five months to respond to the Postal Service's concerns.

"The U.S. Postal Service deserves at least an equal amount of time to respond to OSHA's analysis," Enzi wrote.

In April, Enzi, chairman of the Subcommittee on Employment, Safety and Training, held a hearing in his subcommittee to explore some of the effects of OSHA's proposed ergonomics rule, which concerns musculoskeletal disorders.

Enzi said possible effects of the rule on the workplace could drastically complicate state workers' compensation systems and result in increased costs for consumers.

The large number of preventable occupational diseases and injuries and the lack of adequate occupational safety and health services in most small- and medium-sized workplaces indicate a need for more occupational safety and health professionals, according to a report released by the Institute of Medicine (NIM).

## **TECHNICAL ARTICLES OF INTEREST**

### **Use of Calibration Gas and Equipment Can Save Lives**

By Shankar Muthukrishnan

Recently there was an explosion at a petrochemical plant in Texas where 51 personnel were injured and one died. As professionals involved in the safety, health and environmental industry, preventing accidents of this magnitude is our highest priority.

The biggest contributor to accidents is human error. Over-looking or not taking into account warning signs that present themselves at frequent intervals in a process sometimes is a costly mistake. At the forefront of preventing such accidents is the effective use of calibration gas and equipment.

### Why Calibration Gas and Equipment?

Monitoring gas and equipment are designed to protect personnel and property from the unseen hazards that may exist in the workplace environment. Virtually any industry that involves industrial process and production will have hazardous locations. Gas monitoring equipment helps in the prevention and early detection of anomalies in the process stream. Early detection of leaks can not only prevent unsafe conditions but also prevent loss of revenue. As a result, gas-monitoring equipment is instrumental in the effective day-to-day operations of process and production facilities.

### Regulatory Agency Requirements

Warning signs and leaks can be detected only if the calibration equipment is properly installed and routinely inspected.

Federal agencies such as the National Institute for Occupational Safety and Health (NIOSH), the Occupational Safety and Health Administration (OSHA) and the Mine Safety and Health Administration (MSHA) publish exposure limits for hazardous conditions in the workplace.

NIOSH publishes the Recommended Exposure Limits (REL) for hazardous substances. OSHA publishes the Permissible Exposure Limits (PEL) that are known as the General Industry Air Contamination Standard. Non-governmental agencies such as the American Conference of Governmental Industrial Hygienists (ACGIH) publish the Threshold Limit Values (TLV). These standards are based on Time Weighted Average (TWA), Short Term Exposure Limit (STEL), Ceiling (C) and Immediately Dangerous to Life and Health (IDLH) concepts.

These agencies, along with other institutions, require workplaces to be monitored to ensure safe conditions for the workers.

### What to Look for in the Calibration Gas and Equipment

#### Monitoring Equipment

There are many different types of monitoring equipment available in today's market. Typically, these fall under three categories based on the application of the monitor: Wall mounted, Hand-held, and Personal alarm.

When purchasing a monitor for work area air quality and safety applications, monitoring systems must meet a number of practical criteria. These include:

- ?? Rugged
- ?? Durable
- ?? Capable of being installed in hazardous areas

- ?? Operationally stable
- ?? Easy to inspect, maintain and operate
- ?? Cost effective

What really distinguishes one monitor from another is the gas sensor within them.

Gas Sensors: A gas sensor is a transducer (any device that convert input energy of one form to output energy of another) that detects gas molecules and which produces an electrical signal with a magnitude proportional to the concentration of the gas.

There are five widely used gas sensors in the process industries. They are:

- ?? Electrochemical
- ?? Catalytic bead
- ?? Solid state
- ?? Infrared
- ?? Photoionization

The most common sensors are electrochemical sensors. If you own a monitor, it probably contains one of these sensors.

Purchasing and installing the monitoring equipment alone can not prevent accidents from taking place. Gas sensors have to be calibrated and routinely checked to ensure sensor accuracy and system integrity.

#### Calibration Gas

It is very important to ensure that the monitoring equipment is performing to its optimal level. The only way to do this is to perform functional tests of the monitoring instrument prior to each use and full instrument calibration on a routine basis.

Always follow instrument manufacturers' guidelines while calibrating and installing the equipment. Calibrations should be performed after an instrument has been installed or first used, prior to entering a confined space, after an instrument has been in any alarm condition and after a sensor has been changed in a portable monitor.

Criteria for purchasing and using calibration gas are:

- ?? Always ask your gas manufacturer for a certificate of analysis, The gas used must be NIST traceable. This will ensure the accuracy of the gas.
- ?? When calibrating reactive gases, such as chlorine, use Teflon® lined tubing that will not absorb or adhere to gas molecules.
- ?? Check to make sure that the gas being used has not expired. Do not use the cylinder of gas after its expiration date.
- ?? Consult the instrument manufacturers manual to get the recommended concentration of gas and flow rate.

- ?? Train personnel on the proper calibration of equipment and how to identify an unsafe situation.
- ?? Make sure that an MSDS sheet is on hand so that if an emergency arises, the gas specs are available.

## Conclusions

The safety of employees at the workplace should be the number one priority of employers. Most accidents can be avoided by ensuring that personnel are properly trained and all-monitoring equipment is functioning to the instrument manufacturers' specifications.

In conclusion, effective calibration of monitoring equipment is one of the most important safeguards to preventing the loss of life and property at the workplace.

For additional information, contact PortaGas, Box 230029, Houston, TX 77223, 713/928-6477, 800/548-2268, Fax: 713/928-9961, e-mail [info@portagas.com](mailto:info@portagas.com)

## **Strategic Rest Breaks Reduce VDT Discomforts Without Impairing Productivity**

Short, strategically spaced rest breaks can reduce eyestrain and musculoskeletal discomforts for video display terminal operators without decreasing productivity, the National Institute for Occupational Safety and Health (NIOSH) reports in a new study. The findings are published in the May 2000 issue of the scientific journal *Ergonomics*.

The study compared results under two rest-break schedules for a group of 42 data-entry operators employed by the Internal Revenue Service (IRS). Under one schedule, the VDT operators worked their regular daily schedule that included two 15-minute rest breaks, one in each half of the work shift. In the other schedule, the conventional breaks were supplemented with four 5-minute breaks spaced throughout the workday.

The workers consistently reported less eye soreness, visual blurring, and upper-body discomfort under the supplementary schedule. Quantity and quality of work were comparable under both schedules, as measured by numbers of keystrokes and operators' accuracy in typing data from paper forms into the computer.

Adding short breaks through the day may relieve cumulative discomforts from repetitive motions and static postures in a way that conventional break schedules do not, the findings support.

The study was one of a series conducted by NIOSH at the request of the IRS and the National Treasury Employees Union (NTEU). NIOSH was asked to work with IRS and NTEU to evaluate the effects of various changes in work organization and ergonomic design for reducing VDT operators' musculoskeletal discomforts at a tax document-processing center.

NIOSH, IRS, and NTEU collaborated on developing and evaluating the supplementary rest break strategy. For comparisons, the data entry operators were asked by questionnaire to use a numerical scale to rate levels of discomfort in the hands, wrists, forearms, elbows, upper arms, shoulders, neck, back, buttocks, and legs. They also were asked to rate levels of eye soreness, visual blurring, headache, cheerfulness, energy, tension, and fatigue. The results

were statistically analyzed, and mean ratings were obtained and compared for each category under the two break schedules.

For further information on the study and on other NIOSH research on health and safety issues related to VDTs, call the NIOSH toll-free information number, [1-800-35-NIOSH](tel:1-800-35-NIOSH) (1-800-356-4674) or visit NIOSH on the World Wide Web at [www.cdc.gov/niosh](http://www.cdc.gov/niosh).

### **NIOSH Issues New Alert on EtO To Prevent Injuries in Sterilization Facilities**

Steps for avoiding injuries and deaths at industrial ethylene oxide (EtO) sterilization facilities have been recommended by NIOSH.

*Preventing Worker Injuries and Deaths From Explosions in Industrial Ethylene Oxide Sterilization Facilities*, lists actions that can be taken by workers and employers at EtO sterilization facilities and repackaging plants.

EtO is recognized as safe, effective, and efficient in sterilization and is used by the health care and food industries to ensure sterile products. However, between 1994 and 1998, EtO was involved in 10 explosions at such facilities, and caused one death and 59 injuries among workers.

NIOSH, EPA, and the Ethylene Oxide Sterilization Association are requesting assistance in preventing explosions at these facilities. During sterilization procedures, EtO, a flammable gas, can "easily form explosive mixtures when it is vented to certain types of emission control devices such as catalytic oxidizers," according to the alert.

The alert addresses how workers can prevent overfeeding the oxidizing emission control device, store and handle EtO properly, deal with leaks and spills, be prepared for rescue, prevent skin and eye contact, and use respiratory protection and other personal protective equipment.

It also tells employers how they can analyze and develop written procedures, implement engineering controls, install emergency equipment, provide respiratory protection and PPE, provide training, and prepare workers for rescue.

### **Research Says Work Lead Exposures Could Increase Risk of Alzheimer's Disease**

Results of a study announced May 4 indicate that exposure to lead on the job has long-term effects and may "dramatically increase the risk of developing Alzheimer's disease in later years."

Workers who have been employed in jobs with high levels of lead exposure are up to 3.4 times more likely to develop the disease, according to a study conducted by Case Western Reserve University and University Hospitals of Cleveland, Ohio.

Elisabeth Koss, lead author of the study, warned that another cause for concern is that long-lasting changes to the nervous system may increase that risk for Alzheimer's.



The study noted that in the workplace, employees are most often exposed to lead by either breathing lead dust, which is considered to be the most toxic, or by direct skin contact. Job duties that can expose workers to lead include smelting or casting lead; removing lead coatings by welding, brazing, cutting and blasting or sanding old paints; heating, machining, or spraying lead products; and making lead products.

Case Western researchers also examined exposures to aluminum, copper, iron, mercury, zinc, and solvents. They noted that although previous studies have raised concerns about possible relationships between Alzheimer's and many of these metals, only lead exposure was found to increase the risk of the disease.

Koss noted the patients with Alzheimer's in the study were older than those without the disease. She related this to a decrease in on-the-job exposures because of more recent government regulations that enforce safer work conditions.

### **Lyme Disease Fact Sheet**

*OSHA has released a hazard bulletin advising employers to protect outdoor workers from Lyme disease. See below.*

#### **Tick Borne Disease**

Anyone working in the outdoors, especially in areas with tall grasses, shrubs, low hanging branches, or leaf mold is susceptible to being bitten by a tick.

- ?? There are several diseases that can be carried by ticks, with the most well known being Lyme disease.
- ?? The ticks that carry Lyme disease, as well as several other diseases, are the black-legged tick in the eastern United States, and the western black-legged tick along the west coast. The lone star tick is also a possible carrier.
- ?? Other types of ticks carry other diseases, though the diseases are less common than Lyme disease.
- ?? The ticks can carry disease in their larval, nymph, or adult stages. In the larval stage they may look like small black specks, the nymph is about the size of a poppy seed, and the adults can be less than 1/8 inch (3 mm) long.
- ?? There were over 18,000 cases of Lyme disease reported in the United States during 1997 (total, not just occupational). Other tick borne diseases effected several hundred people.
- ?? Some estimates indicate that as little as 10% of the cases of tick borne disease are actually reported.

#### **How Do Ticks Get on a Person**

- ?? Ticks do not jump, crawl, or fall onto a person. They are picked up when your clothing or hair brushes a leaf or other object they are on.
- ?? Ticks are generally found within three feet of the ground.

- ?? Once picked up, they will crawl until they find a likely site to feed. Often they will find a spot at the back of a knee, near the hairline, or behind the ears.

### Precautionary Measures

The best way to prevent tick borne diseases is not to be being bitten by a tick. There are several things you can do which will lessen your chance of being bitten.

- ?? Wear long pants and a long sleeved shirt, tuck the shirt into your pants, tuck the pants into your socks or boots or use tape to close the opening were they meet
- ?? Wear a hat, tie back long hair
- ?? Use an EPA approved insect repellent or arachnicide (pesticide) which is effective for ticks, such as DEET (N,N-diethyl-m-toluamide) or pyrethrin. Be sure and follow all precautionary information, and be aware that some people are sensitive to these chemicals.
- ?? Wear light colored clothing so that a tick can be seen better.
- ?? Change clothes when you return from a area where ticks may be located.
- ?? Shower to wash off any loose ticks.

### Tick Check and Removal

- ?? Check clothing for ticks on a frequent basis. If you find a tick, do a more thorough tick check.
- ?? When you return from an area where ticks may be located, check all of your body for ticks. It may be helpful to have someone else check your back or other areas which are difficult to see. Be sure to include:
  - ?? Parts that bend (back of knee, between fingers and toes, underarms).
  - ?? Pressure points where clothing presses against skin (underwear elastic, belts, neck).
  - ?? Other common areas (belly button, around or in ear, hairline, top of head).
- ?? Once inside do a final thorough tick check and clothing change.
- ?? If you are in a tick infested area or an area known to have disease carrying ticks, perform the checks on a more regular basis.
- ?? Remove unattached ticks promptly.
- ?? Attached ticks are promptly removed using fine pointed tweezers:
  - ?? The mouth parts of the tick are grasped with the tweezers as close to the skin as possible;
  - ?? Apply firm steady pressure upward until the tick releases - do not jerk, twist, squash or squeeze the tick;
  - ?? Clean the wound and the tweezers with an antiseptic.

- ?? Do not use petroleum jelly or nail polish remover, or prick or burn the tick, these actions can cause infected juices to enter the wound.

#### Other Steps You Can Take

- ?? Place clothing worn in tick infested areas into the dryer for at least 30 minutes in order to kill any ticks.
- ?? Be sure and check pets and other animals for ticks. Use approved tick repellants or products which kill ticks.
- ?? If you want to have the tick checked for disease, place the tick in a clean vial or ziplock bag with a blade of grass, then contact your State Health Department for more information.

#### Diseases Carried by Ticks

Ticks can carry a number of diseases. In the United States these diseases include:

- ?? <http://scripts.osha-slc.gov/cgi-bin/redirect?url=http://www.lyme.org/otherdis/babe.html> Babesiosis (a malaria like infection)
- ?? Colorado Tick Fever (generally in the western United States including the coast)
- ?? Ehrlichiosis
- ?? Lyme Disease
- ?? Relapsing Fever (most common in the western United States)
- ?? Rocky Mountain Spotted Fever (throughout the United States but most prevalent in the east)
- ?? Tick Paralysis
- ?? Tularemia (rabbit fever)

Additional Related information:

- ?? The [Lyme Disease Foundation](#) sponsors the Lyme Disease Hotline (1-800-886-LYME) which provides information on Lyme disease and other tick borne diseases.

Your State Health Department has information available about Lyme disease in your area.

#### **Eyewash Standards and Guidelines for the Workplace**

*OSHA says non-compliance with emergency eyewash stations and shower regulations is among its top 25 citations.*

An estimated 1,000 eye injuries occur in American workplaces every day. Often these accidents can be avoided, but for the times they cannot, you, as the employer, must be sure to have suitable emergency eyewash equipment on hand and know how to use it correctly. Assessing the workplace, choosing and installing the proper emergency equipment, and

educating employees on its correct use are an excellent start to decreasing the seriousness of a large percentage of work-related eye injuries.

Eye injuries resulting from chemicals or particles entering the eye can occur when ANSI standards aren't followed. These standards require that all employees in hazardous conditions wear safety eyewear where appropriate. Incorrect or ill-fitting safety eyewear is another reason an injury to the eye may be sustained.

When coming into contact with ultra-sensitive eye tissues, toxic substances immediately begin to damage the eye. Medical statistics show that after the first 10 seconds of chemical contact, chances of full recovery become fleeting. Aside from general tissue damage, acids and alkalis can change the pH in the eye itself. From this detrimental change, severe eye damage, including blindness, may result. Therefore, it is imperative that emergency flushing begin immediately. To help assure the best chances for a minimal amount of eye damage, correct emergency equipment, proper placement, and knowledge of its use are necessary in the workplace.

### The Walk-Through Survey

As an employer, your first step is to assess the workplace and identify when and where emergency equipment is necessary. OSHA says non-compliance with emergency eyewash stations and shower regulations is among the top 25 of all citations. It's your responsibility to conduct a walk-through survey of work areas to assess possible hazards.

Because you may not perform many of the jobs in your workplace on a regular basis, employee input can be critical to completing this survey correctly. If you choose to put someone else in charge of your safety program, choose wisely. Safety isn't all common sense; experience and education also have a lot to do with it. A Certified Safety Professional is the best choice in this case.

It is extremely important to evaluate the workplace carefully before deciding what best suits your safety needs. The following is an outline of instructions, taken from ANSI Standard Z358.1-1990 (section 2), that should help to determine proper emergency eye/skin wash equipment for your workplace:

#### Determine Plant Hazards:

- ?? Identify all hazardous liquids, vapors or particulate matter in your plant, taking into account temperature, concentration and reaction time.
- ?? Evaluate all existing emergency eyewash devices in relationship to the hazards, taking into account distance in feet and in seconds.
- ?? Determine the number of employees exposed to each possible hazard at a given time, using a "worst case scenario."

#### Determine the Most Suitable Emergency Eyewash Device:

- ?? Evaluate the existing potable (drinkable) water supply in the plant, in terms of psi and volume.

- ?? Using all of the information discovered above, determine the most effective type of emergency eyewash device for each identified hazard.

Next, you must choose the proper emergency equipment for each area. Your assessment of the specific hazards involved in each job (and how many people are exposed to them) will determine how much and what type of first aid is needed. There are three main types of eyewash devices to choose from:

- ?? Personal eyewash devices provide less than 15 minutes of flushing time. They are used to support, *not* replace, self-contained or plumbed devices.
- ?? Self-contained eyewash devices provide 15 minutes of flushing time of an independent solution supply. These do not require plumbing.
- ?? Plumbed eyewash devices provide continuous flow of flushing for at least 15 minutes at 3 gallons per minute for eyewashes and 30 gpm for drench showers.

#### Eyewash Stations

The ANSI Z358.1 standard states that emergency eyewash equipment must deliver tepid (lukewarm) water/solution for at least 15 minutes at a minimum flow rate of 0.4 gallons per minute. Flow regulators must be installed in order to control water speed and temperature, to avoid further injury. ANSI's standards say eyewash devices must be positioned so that fluid nozzles are no less than 33 inches from the floor, but no more than 45 inches, to ensure accessibility for all.

OSHA's 1910.151(c) regulation says, "Where the eyes or body of a person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use."

The phrase "suitable facilities" is vague and can be interpreted in many ways. ANSI's more definitive standard includes these current requirements:

#### General Requirements:

- ?? Ability to flush both eyes simultaneously.
- ?? Freeze protection when the possibility of freezing temperatures exists.
- ?? No sharp projections in the operating area of the unit.
- ?? Nozzles protected from airborne contaminants.
- ?? A self-contained unit shall be constructed of materials that will not corrode in the presence of flushing fluid.
- ?? The unit shall deliver no less than 0.4 gpm for 15 minutes.

#### Valves:

- ?? Must have "stay open" feature allowing both hands free to open eyelids.
- ?? Must be capable of being turned on in 1 second or less.

?? The valve activator shall be large enough to be easily located and operated by a user. Additionally, ANSI says the preferred flushing solution is a preserved, buffered saline solution, and its standard recommends flushing eyes for 15 minutes.

Other important factors to consider are the visibility and uniformity of these devices. An employer should make sure each device is highly visible and well marked. If you are installing more than one of the same device, uniformity must be considered in order to avoid confusion during an emergency. Each of these factors will help to prevent the loss of any crucial time during an emergency.

### Drench Showers

Showers may be mounted on the ceiling or on the wall. ANSI mandates the shower head should be positioned so the flushing fluid column is no less than 82 inches and no more than 96 inches from the floor. The requirements state that emergency showerheads are to deliver a minimum of 20 gallons of water per minute.

Most emergency showers are activated by pulling an easy-to-grasp rod or a chain with a handle. Emergency showers must be equipped with "instant on," "stay open" valves. It is also recommended that showers have flow regulators and tempered water valves that compensate for fluctuations in water temperature and pressure.

### Inspection and Maintenance

After selecting the correct emergency eyewash device(s) for your work environment, it is necessary to maintain these devices.

Maintenance benefits both the employees and the company. Of course, well-maintained equipment will deliver the most effective emergency aid in case of an emergency. Also, properly maintained equipment will have a longer lifespan and will effectively stretch a tight safety budget.

The ANSI standard includes these guidelines for eyewash devices:

- ?? Inspection. To prevent confusion, an individual/department should be in charge of checking all devices, including flushing fluids (per manufacturer's instructions) each week. Records of those inspections should be kept on the device.
- ?? Maintenance. Each plumbed device should be checked weekly to test equipment performance and to flush debris or bacterial sediment. If the eyewash unit is self-contained, follow the manufacturer's instructions.

In ANSI Z358.1, it is recommended that no matter which type of emergency wash device is chosen, it should be installed no farther than 10 seconds away from each hazardous area. The path leading to the emergency station should be clear of all obstacles.

In addition, all employees should be properly trained. Regularly scheduled drills should be held both to keep new and current employees informed of the location of all eyewash devices, and to reinforce the importance of immediate emergency care.

By ensuring the ANSI standards for eyewash and drench shower devices are followed, employers will be able to provide a more effective emergency eye care system in their workplaces.

## **OTHER ITEMS OF INTEREST**

### **Healthy Hydration**

Heat. Humidity. Heavy, protective apparel. Strenuous work. All of them add up to a potential health and safety risk for workers in industries ranging from agriculture and manufacturing to law enforcement.

One of the biggest problems facing these workers is dehydration, a particular concern for mobile employees who aren't always close to a ready supply of water. Hydration is important, not only for maintaining worker health and safety, but also for maintaining a worker's productivity.

### **Heat Stress and the Human Body**

Dehydration is a prime cause of heat stress, which can range in severity from reduced strength to nausea and unconsciousness. After two hours of moderate work activity, workers can lose up to 1.5 liters of fluid. They may begin to feel the initial stages of heat stress, such as lagging energy and feeling uncomfortable. After another hour, they may start to lose strength, energy, and focus. In the most severe cases, heat stroke or collapse can occur.

Add heat, humidity, work intensity, or protective clothing into the picture, and the danger to a worker is magnified. Some protective clothing, for example, can affect the body's ability to evaporate sweat and control core body temperature.

The human body maintains a fairly constant internal temperature, even when exposed to varying environmental temperatures. To keep body temperature constant, the body gets rid of excess heat by varying the rate and amount of blood circulation through the skin and by sweating. In the process of lowering internal body temperature, the heart begins to pump more blood, blood vessels expand to accommodate the increased flow, and capillaries begin to fill with blood. The blood circulates closer to the surface of the skin, and the excess heat is lost to the cooler environment.

### **Heat Stress Indicators**

If heat loss from increased blood circulation through the skin is not adequate, the brain signals sweat glands to shed large quantities of sweat, which then evaporates to cool the skin and eliminate heat from the body. Most people lose two to four liters of fluid per day to sweat evaporation. Athletes and laborers in hot, humid conditions can lose two to three liters in just three to four hours. In extremely hot and humid conditions or when wearing heavy, protective clothing, it is possible to lose more than five liters of sweat per day. However, sweating does *not* cool the body unless the moisture is removed from the skin by evaporation. Protective clothing, or close quarters, can keep evaporation from occurring.

## Health and Safety Risks

Under these conditions, a worker's performance becomes compromised. With so much blood going to the external surface of the body, relatively less goes to the active muscles, the brain, and other internal organs. Strength declines, and fatigue occurs sooner than usual. Alertness and mental capacity also may be affected, and those performing delicate or detailed work may find their accuracy suffering, or their comprehension reduced.

Safety problems can also result from heat stress and dehydration. Heat tends to promote accidents due to slippery/sweaty palms, dizziness, or the fogging of safety glasses. Increased body temperature and physical discomfort also promote irritability, anger, and other emotional states, which sometimes can cause people to overlook safety procedures or to divert attention from hazardous tasks.

## The Importance of Hydration

Research on athletes suggests performance falters at a loss of as little as 1.8 percent of body weight because of sweat. A two- to three-percent loss decreases aerobic capacity by more than 10 percent. Dehydration that reduces body weight by 4.3 percent also will decrease performance by 22 percent. For example, a 200-pound person who loses nine pounds of sweat will experience a performance decrease of 22 percent, according to "Why Thirst Hurts" by Bob Helfst, in the August 1999 issue of *Safety & Health*.

The goal is to replace fluids lost during sweating to help combat the effects of heat and humidity, and to keep workers comfortable, productive, alert, and safe.

## How to Stay Hydrated

Hydration experts emphasize the need to drink before, during, and after physical labor. The following are tips for ensuring that workers are getting the proper hydration:

- ?? Anticipate conditions that will increase the need for water, including high temperature, humidity, protective clothing, and difficulty of work.
- ?? "Prehydrate" by drinking eight to 16 ounces of fluid to delay the effects of dehydration.
- ?? Drink every 15 to 20 minutes--not just during rest breaks--to ensure proper hydration. (By the time you notice you're thirsty, you already are dehydrated.) Four to eight ounces several times each hour is generally recommended.
- ?? Drink *cool* water. Your body absorbs it more quickly.
- ?? Keep water within easy reach. Try one of the new "backpack-style" or "fanny-pack" style hydration systems to avoid the need to carry cumbersome water bottles or canteens.
- ?? Avoid alcohol, coffee, tea, or soda, which act as diuretics that further deplete the body of fluid.



?? Monitor your urine. Large volumes of relatively clear liquid indicate proper hydration. Small volumes and/or dark urine probably mean you're dehydrated.

Keep in mind that, even with a proper hydration program, workers and their supervisors need to be vigilant about recognizing and treating signs of heat stress. Permit workers to interrupt their tasks if they become uncomfortable. Workers' health and their job performance depend on their ability to remain hydrated, healthy, and heat stress-free.

**Heat Stress Indicators.** After just three hours on the job site, performance can be drastically affected by the symptoms of heat stress. Replacing fluids lost from sweating is the single most important way to control heat stress, keeping workers productive, safe, and alert.

Dehydration Levels	% Body Weight Lost	Fluid Loss (lbs)	How Soon This Can Happen*	Effects & Symptoms
Minor	1%	1.5	1 hour	Unnoticed
Initial Stage	2%	3.0	2-3 hours	Loss of endurance, thirsty, feel hot, less comfortable
Performance Loss	3%	4.5	3-4 hours	Loss of strength, loss of energy, moderate discomfort
Heat Cramps	4%	6.0	4-5 hours	Cramps, headaches, extreme discomfort
Heat Exhaustion	5-6%	7.5-9	5-6 hours	Heat exhaustion, nausea
Heat Stoke	7%+	11+	7+ hours	Heat stroke, collapse, unconsciousness

\* Rough guidelines only. The timing may vary, based on intensity of work and environmental heat/humidity.

### High Levels of Pollutants Found Inside Cars

The California Air Resources Board (ARB) and the South Coast Air Quality Management District (SCAQMD) have found that exposure to some air pollutants and toxic compounds may be 10 times higher inside vehicles than in ambient air. A two-year, \$440,000 study is the first to gather particulate data inside vehicles and to collect real-time information under a range of traffic and driving conditions.

The purpose of the study was to measure motorists' personal exposure to common motor vehicle pollutants in Los Angeles and Sacramento. The study measured direct exposure to gaseous pollutants, diesel soot, and other fine particulates. ARB researchers also began looking at pollutant levels inside school buses. They found that levels of hydrocarbons and carbon monoxide were between two and 10 times higher inside vehicles than at roadside or fixed monitoring stations. Researchers also found similar levels of toxic compounds such as benzene, 1,3-butadiene, ethyl benzene, toluene, xylene, and MTBE, all considered toxic by

ARB and the EPA. The variations depended on the pollutant, the type of road, and the level of traffic.

As much as one-half of the pollutants inside test cars were emitted by the vehicle ahead. Motorists who used air-conditioning systems and those who drove with their air vents open were exposed to similar amounts of pollution. Researchers learned that people who use carpool lanes were exposed to pollutant levels well below those measured in other traffic lanes, possibly because carpool lanes are less congested and further removed from truck lanes. Dr. Alan Lloyd, ARB chairman, said, "We're learning that peoples' highest daily exposure to air pollutants may be during their commute to and from work. Also, we have concerns about the potential impact on bus riders, especially children."

### **Mucor sp.: IAQ Tech Tip #30**

Mucor is a rapidly growing fungus that is usually dark gray or light olive gray when grown on typical laboratory media. One colony can easily cover a 15x100mm petri dish in four days. It is easily recognizable microscopically by its tall (up to 2 cm) needle like sporangiophores and large sporangium. Mucor, together with Rhizopus, is one of the most quickly invading organisms able to contaminate many kinds of stored food products.

Mucor has world-wide distribution and is often found in hay, stored seeds, horse manure and house dust, regardless of geographical location. It is also frequently found in air samples from indoor environments. Accumulated dust in HVAC systems and poorly maintained carpeting may contain high concentrations of Mucor spores. One study of the most frequent molds found in house dust in samples of homes found Mucor in 98% of the samples from homes in Denmark and 31% of the samples in homes in Canada.

Heavy exposure to the spores of Mucor can cause extrinsic allergic alveolitis, a type 3 (IgG) allergic response. It is generally associated with occupational exposure to wood chips and sawdust. The symptoms, which occur 6-8 hours after exposure include: elevated temperature, flu-like symptoms, general malaise, difficulty breathing and later asthma. Eliminating exposure before the onset of pulmonary fibrosis usually leads to a return to a normal, healthy state.

Mucor is also a rare opportunistic pathogen, attacking individuals with significantly compromised immune systems, metabolic acidosis, uncontrolled diabetes, starvation, severe trauma or other forms of debilitation.

Testing methods for Mucor in IAQ investigations include impaction methods (such as the Aerotech 6 or the Andersen N6) and utilizing spore trap technologies (such as the Air-O-Cell cassette).

### **2000 Guidelines on Assessment and Remediation of Fungi in Indoor Environments: IAQ Tech Tip #31**

The New York City Department of Health has released a new version of their well known document entitled "Guidelines on Assessment and Remediation of Stachybotrys atra in Indoor Environments." The new document entitled "Guidelines on Assessment and

Remediation of Fungi in Indoor Environments" was released in April of 2000. The original document, released in 1993, has been expanded to include all fungi. This modification is due to the fact that many species of fungi, including species of *Aspergillus*, *Penicillium*, *Fusarium*, *Trichoderma* and *Memnoniella*, can produce potent mycotoxins, some of which are identical to those produced by *Stachybotrys chartarum*. Additionally, exposure to high concentration of fungi can cause Organic Dust Toxic Syndrome, Hypersensitivity Pneumonitis and allergic reactions.

The entire new document is available on line at  
[www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html](http://www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html)

As a service to our clients, Aerotech has prepared a Table Summary of the various Remediation Levels from the new guidelines. A printable PDF poster is available on our web site at [www.aerotechlabs.com](http://www.aerotechlabs.com). The opening page to the website has a button entitled "Summary to New NYC Update" on the upper right hand side of the page that will take you to the summary.

### **Environmental Tobacco Smoke Linked to Adverse Health Outcomes in Children**

Also called second hand smoke, environmental tobacco smoke (ETS) is associated with low birth weight, sudden infant death syndrome (SIDS), respiratory problems and middle ear infections in children, reports the California Environmental Protection Agency in a monograph released by the National Cancer Institute (NCI). The report includes comprehensive information on ETS and its implications for cardiac disease and cancers in adults, and it presents new information on the relationship between ETS exposure and prenatal and developmental effects in children.

The monograph reports the following findings pertaining to children:

ETS exposure is causally associated with developmental effects and mortality in infants, including low birth weight, small size for gestational age and SIDS.

The respiratory effects of ETS exposure include onset and exacerbation of asthma, acute lower-respiratory infections, chronic respiratory symptoms, and middle ear infections.

Postnatal ETS exposure is an independent risk factor for SIDS.

Evidence suggests that ETS exposure has an adverse impact on cognition and behavior, can exacerbate cystic fibrosis, can decrease pulmonary function, and is associated with spontaneous abortion.

In response to these findings, U.S. Surgeon General David Satcher emphasized the need for continued efforts to achieve a smoke-free society by "encouraging communities to enact clean indoor air ordinances requiring 100% smoke-free environments in all public areas. He also encouraged smokers as well as nonsmokers to make their homes smoke-free to protect their children and families from ETS exposure."

To obtain a copy of the report, call 800-4-CANCER. The report also can be downloaded in sections from [http://rex.nci.nih.gov/NCI\\_MONOGRAPHS/LIST.HTM](http://rex.nci.nih.gov/NCI_MONOGRAPHS/LIST.HTM)

## **Fall Protection**

NIOSH has released a report on fall safety during construction of cellular and wireless communication towers. The reports concludes that workers building communication towers suffer fatal occupational injuries, at a higher rate than employees in the U.S. industry overall. Copies of the report are available from the NIOSH division of safety research at (304) 285-5916.

## **ARMY ITEMS OF INTEREST**

### **Cadmium Settlement Nets Depot Employees Cash**

Federal employees who were exposed to cadmium for several years at the Anniston, Ala., Army Depot were recently granted more than \$1.7 million in back pay and interest. The American Federation of Government Employees (AFGE) and the Anniston Army Depot reached the settlement in late April, after AFGE filed for environmental differential pay for 310 employees in May 1997.

The employees had been exposed to cadmium since 1981. Employees who work in hazardous environments are entitled to a wage increase-known as environmental differential pay-for time spent working in hazardous environments. Although the two sides reached an agreement, the Army depot does not acknowledge employee exposure to unhealthy work conditions, said George Worman, an attorney for the depot. Worman also classified the settlement as "in lieu of back pay" and not as environmental differential pay stated the settlement was not officially recognized as environmental differential pay, but." Worman said that good working relations with employees and the union as well as employee safety were driving factors in coming to a compromise. "We felt it was a wise expenditure of money," he said.

Cadmium is a toxic metal generally found in industrial workplaces, particularly in welding. The general population exposure to cadmium occurs from breathing cigarette smoke or eating cadmium contaminated foods. Cadmium exposure at very high levels or over a long time can result in lung damage, kidney disease, and irritation to the digestive tract.

According to Worman, the depot complied with OSHA standards. The AFGE Local 1945 in Anniston, said that claim was debatable. "We don't believe they are in compliance with the standards," she said. Still, Flowers admitted that there was no empirical data demonstrating that an employee became ill due specifically to cadmium exposure at the depot. She said one employee was diagnosed by a doctor as showing symptoms characteristic of cadmium-related illness.

Worman and Flowers said both the depot and the union will continue to negotiate on a variety of issues, including environmental differential pay entitlement. Worman said the cadmium settlement represented "a blueprint of how we would conduct further negotiations."

### **DOE Compensation for Work Related Illnesses**

US Energy Secretary Bill Richardson announced a new initiative to compensate for DOE workers with certain types of work-related illnesses. If Congress approves the initiative, eligible workers could receive a \$100, 000 lump sum.

## **IH PROFESSIONALISM**

### **Certificate Programs Earn Credit Toward OHST Certification**

The American Board of Industrial Hygiene/Board of Certified Safety Professionals Joint Committee has established a procedure by which certificate programs in S&H offered by colleges or private organizations can waive part of the experience requirement for the Occupational Health and Safety Technologist certification. Candidates can waive up to 2 years of the experience requirement. Candidates may waive part or all of the experience requirement if they have an associate degree or higher. Contact ABIH/BSCP Joint Committee for details at (217) 359-2686, fax (217) 359-0055; jtcomm@bcsp.org.

### **New Breed of OH Professional**

The report, "Safe Work in the 21st Century: Education and Training Needs for the Next Decade's Occupational Safety and Health Personnel," found that as the delivery of occupational safety and health services become more complicated, different types of occupational safety and health personnel and training will be needed.

Traditional occupational safety and health programs must be supplemented by a new model that focuses on comprehensive multidisciplinary training and new types of training programs, according to the report.

The report noted that training should focus on prevention and its success will depend upon the discovery of new and improved ways of reaching small and mid-sized industries with decentralized and highly mobile workforces.

Some of the report recommendations include:

- ?? reducing the "enormous and continuing" impact of acute and chronic injuries on workers;
- ?? developing new leaders in the field; and
- ?? strengthening research and training at all levels of the workplace.

Recommendations are addressed to federal and state agencies, occupational safety and health organizations, educational institutions, employers, unions and other stakeholders.

NIM is one component of the National Academy of Sciences. The National Institute for Occupational Safety and Health (NIOSH) asked NIM to compile a report analyzing in detail the changes that have taken place and to assess the supply of, the demand for, and the knowledge, skills and abilities of occupational safety and health professionals.

Copies of the report are available online at [books.nap.edu/catalog/9835.html](http://books.nap.edu/catalog/9835.html)

## **Industrial Hygienists Want a Stronger OSHA**

The American Industrial Hygiene Association has issued a series of recommendations for OSHA that include:

- ?? Increasing OSHA's budget;
- ?? Extending OSHA coverage to the 8.1 million public employees currently not covered by the OSH Act;
- ?? Making OSHA penalties at least as stringent as penalties for violations of environmental laws; and
- ?? Setting generic performance standards for areas that could include occupational health and safety programs, health and safety program auditing, and employee involvement in these programs.

## **Are You Confused Over Credentials?**

There are nearly 160 and the number keeps growing. We probably have more credentials in the environmental health and safety field than any other profession in the world. This could be because our field is very broad and complex. Or because it's not one profession but a mixture of many different jobs.

Whatever the reasons, confusion over credentials is a problem for both professionals and employers. Today there are nearly 160 EHS credentials and the number keeps growing. Consider these issues:

- ?? Most employers want an employee or job candidate to hold an EHS credential — so which ones do they rule out?
- ?? Which credential(s) should you spend your time and money on?
- ?? Since the EHS field is requiring more generalized work, which credential should someone new to the field pursue first?
- ?? Does a person certified in safety, industrial hygiene, or hazardous materials also require a certification in auditing or training?
- ?? Some credentials require that you work in a specified skill area most of the time to maintain the credential. If you hold two or more certifications in different areas, how can you work in each of them a majority of the time?

What's in a name?

To be sure, the need for specialty credentials in the EHS field has been around for many years, and specialty credentials are valuable. For example, in the late 1970s, I worked for a public health department. My job often entailed providing advice on how to control pests in buildings. My employer, for liability purposes, required me to become a Certified Pesticide Applicator (public health aspect) before I could specify to the public or a business the type of pesticide that would be most effective in getting rid of a pest.

In the early 1980s, I was required by another employer to become a Certified Visible Emission Reader. This credential qualified my ability to visually determine the opacity of dust or smoke that was necessary to meet air pollution permit specifications.

But today there are so many similar sounding credentials that employers are confused. You can be certified in safety as a professional, executive, manager, or specialist. You also can be registered as a safety practitioner, professional, or technician.

In hazardous materials, you can be certified as a manager, executive, supervisor, technician, specialist, master, or expert. Industrial hygiene credentials include certified industrial hygienist, certified industrial hygiene manager, certified industrial hygiene officer, registered professional industrial hygienist, and professional hygiene diplomat.

Most of us working in the EHS field claim to be generalists. But each year we see more and more specialist credentials pop up — covering auditing, training, ergonomics, indoor air quality, accident reconstruction, workers' compensation, fire, injury prevention, and so on. Behavioral safety credentials? They are not here yet, but they're coming. Specialty credentials may eventually be created for every conceivable area of EHS expertise.

### Comparison Shopping

What are the quality differences between a certified safety professional, certified safety manager, and registered safety practitioner? Most people in the EHS field, and especially employers, cannot really answer this question. There is no matrix that effectively compares and contrasts all EHS credentials.

Accreditation boards have been set up to “vouch” for the credibility of some EHS credentials. But given that there may be more than one EHS credential in an area of expertise, there is not just one accreditation board.

It comes down to the argument that “my credential is better than your credential.” This debate is very hard for any side to win. It is very hard to spot an outright bogus EHS credential. Some credentials, however, are and will remain inferior to others.

EHS credentials that have been around for many years are probably more credible than ones new to the market. But over several years, comparable credentials may not be that different.

Few credentials come into the field that are truly difficult for most of us to achieve. Generally, most people are “grandfathered” by experience into a new credential without any testing. During the first few years when testing is required, the questions and a passing score are relatively easy. After a few years, tests become more difficult as the most under-qualified people are screened out to maintain the value and credibility of the designation.

Some people now shy away from well-established credentials because of the difficulty in passing the exams. For example, about 50 percent of applicants will fail a CIH exam the first time they take it. People may lean toward low-road alternative credentials instead of ones with more quality control.

### What to do

Keep in mind the two key reasons why someone obtains an EHS credential: Personal and professional pride (or vanity); and job advancement. Many studies show credentials lead to

higher compensation. Before you select a credential, consider the type of job and employer you want to work for, and then compare credentials that will help you get where you want to go.

Also keep in mind that organizations and businesses create and market credentials for three prime reasons: to serve their membership; to establish a method to identify qualified people; and to make money. Making money is a big motivator behind the creation of many EHS credentials. There are few EHS credential services set up as not-for-profit corporations. Take a close look at the groups behind the certifications, their structure and history. The Internet is a great tool for researching certifications.

Also, ask questions. What certifications are popular with professionals in your organization, industry, or local community? The marketplace will determine the fate of all EHS credentials. If the credential is not viewed as valuable, it will eventually die on the vine.

### **Certification 'Round The World**

There's a growing need for certified industrial hygienists in developing industrial regions such as Southeast Asia, Latin America, and Central Europe. The American Board of Industrial Hygiene is considering setting up an exam center in Singapore or Kuala Lumpur if there are enough qualified candidates.

### **New Associate Industrial Hygiene Certification for 2001**

ABIH has introduced a new associate industrial hygiene certification for 2001 for those professionals who may practice in a single IH rubric such as air pollution, ergonomics, health physics etc. The basic qualifications will include: a BS with at least 30 semester hours of science or math, IH college or PDC courses covering fundamentals, measurements, controls and toxicology; four years of post-bachelor, professional –level IH experience (at least 25 percent IH activities; and successful completion of a written exam. For more information see the ABIH homepage, [abih@abih.org](mailto:abih@abih.org)

### **Injury, Illness Rates at Small Work Sites Indicate Need for More Safety Professionals**

The large number of preventable occupational diseases and injuries and the lack of adequate occupational safety and health services in most small and medium-sized workplaces indicates a clear need for more occupational safety and health professionals according to a report released by the Institute of Medicine.

Drastic changes that have occurred in the workplace since the OSH Act was passed in 1970 prompted NIOSH to ask the Institute of Medicine to compile a report analyzing in detail the changes that have taken place and to assess the supply of, the demand for, and the knowledge, skills, and ability of occupational safety and health professionals and what skills might be required in the future. The Institute of Medicine is one component of the National Academy of Sciences.

The report, *Safe Work in the 21<sup>st</sup> Century: Education and Training Needs for the Next Decade's Occupational Safety and Health Personnel*, found that as the delivery of occupational safety and health services become more complicated, different types of occupational safety and health personnel and training will be needed.



Traditional occupational safety and health programs must be supplemented by a new model that focuses on comprehensive multidisciplinary training and new types of training programs, the report said.

The report noted that training should focus on prevention and its success will depend upon the discovery of new and improved ways of reaching small and mid-sized industries with decentralized and highly mobile workforces.

Report recommendations include:

- ?? reducing the “enormous and continuing” impact of acute and chronic injuries on workers;
- ?? developing new leaders in the field; and
- ?? strengthening research and training at all levels in the workplace

To improve the current occupational safety and health workforce, NIOSH should develop a training initiative focusing on the prevention of occupational injuries. NIOSH also should extend existing training programs to support individual doctoral candidates whose research is deemed important to the prevention and treatment of occupational injuries and illnesses.

Distance learning and other alternatives to traditional education and training programs should be emphasized by NIOSH. In addition, the American Board of Preventive Medicine should reexamine current pathways to certification in occupational medicine.

To prepare occupational safety and health professionals for the future, the report suggests:

- ?? NIOSH work in collaboration with OSHA to fund large-scale demonstration projects that target training in small and mid-sized workplaces;
- ?? current worker training programs be evaluated by unions, OSHA, and other agencies to establish minimum quality standards;
- ?? demonstration projects be solicited to create model worker training programs for occupational safety and health trainers;
- ?? special attention be given to the needs of older, female, and ethnic/cultural minority workers;
- ?? current accreditation criteria and standards be examined; and
- ?? graduate training support be broadened to include behavioral health science programs.

## **INTERNET NEWS**

### **The National Safety Council Launches a New Web Site for Safety, Health and Environment Professionals**

The following information was provided by the National Safety Council

Wouldn't it be nice if you could do a Web search on chemical MSDS sites and get back direct links to MSDS databases? You can avoid sorting through hundreds of irrelevant citations for other chemical-related sites by using the National Safety Council's new safety, health and environment search engine. They do the research so you don't have to.

NSC has recently integrated their internal databases along with researched online resources. The new Web site, called Crossroads ([www.crossroads.nsc.org](http://www.crossroads.nsc.org)) provides information on injury statistics, hazardous chemical profiles, safety data sheets, topical articles, expert Q&A, plus many other hard-to-find features. Also, Crossroads has a special section just for users of CAMEO@ and ALOHA@ chemical emergency planning software.

What makes the Crossroads site unique is that the data is developed and maintained by experienced professionals at the National Safety Council. The site outlines specific topic areas and organizes data in an easy-to-find manner. All of these features help reduce the clutter you would normally have to spend rifling through a hit list of inappropriate or dead-end links.

"We've targeted safety, health and environmental professionals due to the great resources we have available for them." said Lee Feldstein, Project Manager for NSC's Crossroads Web site. "NSC has valuable resources on safety statistics and environmental reports that most people aren't even aware of. The Council also brings 11+ years of experience in supporting CAMEO and ALOHA." Feldstein added.

NSC offers you your own search engine that takes the bite out of hit lists that run thousands of items long. For more information, contact: [The National Safety Council's Crossroads Website](http://www.nsc.org/crossroads).

## **PUBLICATIONS**

NIOSH Bibliography 1999 (Pub. No. 2000-136) see their website at <http://www.cdc.gov/niosh/nioshbib.html>

## **TRAINING COURSES AND CONFERENCES**

### **USACHPPM**

*Please note date changes, this will be held in Denver only !!*

American Industrial Hygiene Association (AIHA) Exposure Assessment Strategies & Statistics

Point of Contact: Bonnie Burello at DSN: 584.2439 or commercial 410.436.2439.

Prerequisites: A basic knowledge of industrial hygiene survey techniques, statistics, and Microsoft Excel spreadsheets are required. Scientific calculators are required. This is a tested course.

Objectives: This course is designed to provide you with the knowledge and skills necessary to develop strategies for effectively managing workplace exposures. These strategies will

lead to more efficient use of monitoring resources, better evaluation of exposures and monitoring data, and improved communication of exposure risks to employees and management. Completion of the course will significantly enhance your ability to use DOHRS-IH.

**Abstract:** This three-day workshop describes strategies for implementation of a comprehensive exposure assessment program. Attendees will receive the AIHA publication, *A Strategy for Assessing and Managing Occupational Exposures* (2nd Edition, 1998). Key concepts include exposure groups, sampling designs, statistical distributions, and interpretation of exposure monitoring data. Experiences and lessons learned in the field will be shared with attendees. Problem-solving exercises are interwoven throughout the course, and attendees will work through examples that will help them apply the concepts. Statistical tools will be presented to assist with decision-making regarding the acceptability of exposure monitoring results.

**Students:** This course is primarily for MEDCOM industrial hygiene personnel but other qualified personnel may attend on a space available basis. One Industrial Hygienist from each installation will be centrally-funded to attend. If more than one application from an installation is received, the applications must be prioritized. The selected Industrial Hygienist will be responsible for training others upon return to their respective installation/duty location.

**Dates:**

?? 6-8 September 2000 in Denver, Colorado. Travel days are Tuesday, 5 September and 9 September

?? 11-13 September 2000 in Denver, Colorado. Travel days are Sunday, 10 September and Thursday, 14 September.

The applicant is responsible for researching government airfare or POV travel for both cities and quoting the costs on their application. The course location with the least expensive travel costs from duty station will be the location chosen.

**How to Apply:**

Go to <http://chppm-www.apgea.army.mil/trng/datepage.htm>. Complete the application online. Deadline is 23 June 2000. If needed, applications may be faxed to 410.436.8795 or sent by mail.

**The 3rd Annual Force Health Protection Conference is Looking for Poster Session Presenters!!!**

Date: 6 - 11 August 2000

Location: Baltimore Convention Center, Baltimore, Maryland

Course Title: "Force Health Protection for the New Millennium"

Vision: To integrate all areas of Force Health Protection Technical Expertise to optimize our support to America's deployed forces.

#### Conference Structure

- ?? This is the third Army Force Health Protection Conference. It provides the force health protection community with the opportunity to maximize training and education through CEUs and CMEs, addresses relevant and significant force health protection issues, and provide multiple opportunities for mentoring and networking.
- ?? This conference is an opportunity for multiple preventive medicine and health promotion disciplines to come together to increase awareness of the issues they face in their common efforts to increase the health of our soldiers, sailors, airmen, and Marines.

#### Who will be attending

- ?? The conference is directed toward military and civilian professionals responsible for planning, organizing and implementing health promotion and preventive medicine within the Department of the Army.
- ?? This conference is designed to provide information on hot topics and occupational specialty topics for a wide variety of disciplines comprised of: Audiologists, Community Health Nurses, Entomologists, Environmental Science Officers & Sanitary Engineers, Health Promotion & Wellness professionals, Industrial Hygienists, Nuclear Medical Service Officers, Occupational Health Nurses & Occupational Medicine Physicians and Physician Assistants, Optometrists, Preventive Medicine Officers, Preventive Medicine NCOs, and the Veterinarians.
- ?? The conference is open to active duty military personnel in all services, DoD civilian employees, civilian non-government employees, non-active duty military personnel (Reserves, National Guard, Coast Guard, etc.).

At the 3rd Annual FHP Conference, 7-11 August, USACHPPM will fund 15 Poster Session Presenters to attend.

#### **AIHA Sponsored Training Courses**

NOTE: Get the latest from the AIHA WWW Site at <http://www.AIHA.org/ce.html> or call (703) 849-8888.

#### AIHA PDCs

- ?? Fundamentals of Industrial Hygiene  
July 17-21, 2000 -- Pittsburgh, PA  
October 16-20, 2000, La Jolla, CA
- ?? Quantitative Industrial Hygiene

August 7-10, 2000 -- Fort Collins, CO

?? Comprehensive Industrial Hygiene Review

September 25-29, 2000; Ann Arbor, MI

?? 15th Annual Toxicology Symposium

August, 2000 - TBA

?? HVAC and Indoor Air Quality

November 13-15, 2000 - Albuquerque, NM

[Distance Learning Programs](#)- All with CEUs

?? Applied Ergonomics - CM Points

?? Indoor Air Quality Solutions - CM Points.

?? Integrating IH Into the Business Process - CM Points

?? Taking Control: Protect Yourself from Noise and Hearing Loss - CM Points  
Cosponsored by the University of Michigan School of Nursing

?? Risk = Hazard + Outrage: A Formula for Effective Risk Communication - CM Points  
pending

?? Quantitative Risk Communication: Explaining the Data: CM Points pending

?? Implementing Risk Communication: Overcoming the Barriers - CM Points pending

AIHA Self-study Courses

Three good courses are available.

?? Classic Safety. Earn 5.0 CEUs upon completion. This course has no prerequisites and is designed for Industrial Hygienists, entry-level environmental health and safety professionals, engineers, and architects.

?? Elemental Industrial Hygiene. Earn 10.0 CEUs. New 1998 version. This course is an introduction to industrial hygiene and assumes no prior knowledge. The course is targeted to entry-level industrial hygienists and those preparing to take the core IH examination. It also provides a good review for the seasoned professional and those "health" health professionals bridging to industrial hygiene.

?? Effective Risk Communication Training Series.

## **JUST THE FACTS**

**National Safety Council Special Report? NSC estimates**

- ?? 95,500 deaths in 1999 due to unintentional injuries.
- ?? More than 200 million Americans were seriously injured in 1999 and the cost associated with those injured is \$500 billion.
- ?? 5,100 employees were killed on the job in 1999 while 30,800 deaths occurred in homes.
- ?? Falls are the primary cause of home and community unintentional-injury deaths followed by poisoning, fires and burns, choking and drowning.
- ?? On an average day, 14 people are killed and more than 10,400 are disabled on the job--less visible are the 60,000 deaths caused each year by job-related illnesses.
- ?? The cost to the economy of workplace injuries exceeds \$127 billion a year.
- ?? On the average 112 people die on the highways every day of the year (40,800 deaths per year).

### **Tips on Preventing Sunburn**

- ?? Use sunscreen with an SPF rating of at least 15.
- ?? Use sunscreen everyday you are in the sun for more than 20 minutes.
- ?? Gels need to be applied more often than creams.
- ?? Apply sunscreen to dry skin 15-20 minutes before going outdoors.
- ?? When applying sunscreen pay particular attention to the face, hands and arms, and coat the skin liberally.

### **JOBS**

See <http://www.usajobs.opm.gov/wfjic/jobs/TG1875.HTM>

**Position: INDUSTRIAL HYGIENE AND SAFETY MANAGER, Buffalo, NY**

OPEN PERIOD 06/02/2000 - 07/03/2000

SERIES/GRADE: GS-0690-13/13

SALARY: \$ 55,837 TO \$ 72,586, ANNUAL

PROMOTION POTENTIAL: GS-13

ANNOUNCEMENT NUMBER: FT007252

HIRING AGENCY: US Army Corps of Eng (Except Civ Prg Fin)

DUTY LOCATIONS: 0001 USAED BUFFALO, NY

CONTACT: WENDY TAYLOR, PHONE: (410) 306-0078; INTERNET ADDRESS: Wendy.Taylor@cpocner.apg.army.mil;

U.S. ARMY  
NORTHEAST  
STAFFING DIVISION  
314 JOHNSON STREET  
ABERDEEN PROVING GROUND, MD 21005-5283

**Position: INDUSTRIAL HYGIENIST**

OPEN PERIOD 06/09/2000 - 07/07/2000

SERIES/GRADE: GS-0690-12/

SALARY: \$ 50,139 TO \$ 65,179, ANNUAL

PROMOTION POTENTIAL: GS-12

ANNOUNCEMENT NUMBER: 14DF511Y0

HIRING AGENCY: Field Operating Office of Office of Secretary of the Army

DUTY LOCATIONS: 0001 OMAHA, NE

CONTACT: CIV.PERSONNEL ADVISORY CTR, PHONE: (402) 221-4072

U.S. ARMY  
SOUTHWEST  
STAFFING DIVISION  
BUILDING 301, MARSHALL AVE.  
FORT RILEY, KS 66442

**Position: INDUSTRIAL HYGIENIST**

OPEN PERIOD 06/09/2000 - 06/23/2000

SERIES/GRADE: GS-0690-07/11

SALARY: \$ 29,998 TO \$ 53,544, ANNUAL

PROMOTION POTENTIAL: GS-11

ANNOUNCEMENT NUMBER: 032093DF0

HIRING AGENCY: Field Operating Office of Office of Secretary of the Army

DUTY LOCATIONS: 0001 FORT HOOD, TX

CONTACT: DEBBIE FORRESTER, PHONE:(785) 239-0064, INTERNET ADDRESS:  
forrestd@cpocswr-emh1.army.mil

U.S. ARMY  
STAFFING DIVISION  
BUILDING 301, MARSHALL AVE  
FORT RILEY, KS 66442

**Position: INDUSTRIAL HYGIENIST**

OPEN PERIOD 06/16/2000 - 07/14/2000

SERIES/GRADE: GS-0690-07/11

SALARY: \$ 29,998 TO \$ 53,544, ANNUAL

PROMOTION POTENTIAL: GS-11

ANNOUNCEMENT NUMBER: EFM07030

HIRING AGENCY: US Army Medical Command

DUTY LOCATIONS: 0001 FORT HOOD (BELL), TX

CONTACT: ANNIE WHITE, PHONE: (410) 306-1262; INTERNET ADDRESS:  
Annie.White@cpocner.apg.army.mil

U.S. ARMY  
NORTHEAST  
STAFFING DIVISION  
314 JOHNSON STREET  
ABERDEEN PROVING GROUND, MD 21005-5283

**Position: INDUSTRIAL HYGIENE TECHNICIAN**

OPEN PERIOD 06/09/2000 - 09/30/2000

SERIES/GRADE: GS-0640-07/09

SALARY: \$ 28,265 TO \$ 34,575, ANNUAL

PROMOTION POTENTIAL: GS-09

ANNOUNCEMENT NUMBER: 032091DF0

HIRING AGENCY: Field Operating Office of Office of Secretary of the Army

DUTY LOCATIONS: 0001 FORT HOOD, TX

CONTACT: DEBBIE FORRESTER, PHONE:(785) 239-0064, INTERNET ADDRESS:  
forrestd@cpocswr-emh1.army.mil

U.S. ARMY  
STAFFING DIVISION  
BUILDING 301, MARSHALL AVE  
FORT RILEY, KS 66442



**106th CONGRESS  
LEGISLATIVE ACTIVITY  
May 16, 2000**

**The following is a synopsis of federal legislation monitored by the American Industrial Hygiene Association**

**OSHA REFORM**

**S 385? AUTHOR: Enzi**

SUMMARY: Improves the safety and health of working environments.

STATUS:

02/06/1999: INTRODUCED.

02/06/1999: To SENATE Committee on HEALTH, EDUCATION, LABOR, AND PENSIONS.

04/29/1999: In SENATE Committee on HEALTH, EDUCATION, LABOR AND PENSIONS: Ordered to be reported as amended.

10/28/1999: From SENATE Committee on HEALTH, EDUCATION, LABOR AND PENSIONS: Reported as amended.

10/28/1999: In SENATE. Placed on SENATE Legislative Calendar.

*AIHA NOTE: This is the major Senate OSHA reform legislation. AIHA has adopted a position statement on the bill and testified before a Senate Subcommittee on March 4.*

**S 651? AUTHOR: Wellstone, Kennedy**

SUMMARY: Amends the Occupational Safety and Health Act of 1970 to modify the provisions relating to citations and penalties.

STATUS:

03/17/1999: INTRODUCED.

03/17/1999: To SENATE Committee on HEALTH, EDUCATION, LABOR, AND PENSIONS.

*AIHA NOTE: Changes penalties for willful violation of OSH Act that results in death of an employee.*

**S 652? AUTHOR: Wellstone, Kennedy**

SUMMARY: Amends the Occupational Safety and Health Act of 1970 to protect employees against reprisals from employers based on certain employee conduct concerning safe and healthy working conditions.

STATUS:

03/17/1999 INTRODUCED.

03/17/1999 To SENATE Committee on HEALTH, EDUCATION, LABOR, AND PENSIONS.

*AIHA NOTE: Makes changes to whistleblower protections.*

**S 653 AUTHOR: Wellstone, Kennedy**

SUMMARY: Amends the Occupational Safety and Health Act of 1970 to further protect the safety and health of employees.

STATUS:

03/17/1999 INTRODUCED.

03/17/1999 To SENATE Committee on HEALTH, EDUCATION, LABOR, AND PENSIONS.

*AIHA NOTE: Combination of increased coverage, penalty changes and whistleblower protection.*

**HR 1192 AUTHOR: Hefley et al**

SUMMARY: Amends the Occupational Safety and Health Act of 1970.

STATUS:

03/18/1999 INTRODUCED.

03/18/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

04/09/1999 In HOUSE Committee on EDUCATION AND THE WORKFORCE: Referred to Subcommittee on WORKFORCE PROTECTIONS.

**HR 1427 AUTHOR: Talent et al**

SUMMARY: Improves the safety and health of working environments.

STATUS:

04/15/1999 INTRODUCED.

04/15/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

04/30/1999 In HOUSE Committee on EDUCATION AND THE WORKFORCE: Referred to Subcommittee on WORKFORCE PROTECTIONS.

*AIHA NOTE: This is the major House OSHA reform legislation.*

**HR 1434 AUTHOR: Ballenger et al**

SUMMARY: Amends the Occupational Safety and Health Act of 1970.

STATUS:

04/15/1999 INTRODUCED.

04/15/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

05/13/1999 In HOUSE Committee on EDUCATION AND THE WORKFORCE: Referred to Subcommittee on WORKFORCE PROTECTIONS.

*AIHA NOTE: Permits employee involvement in workplace safety and health.*

**HR 1436 AUTHOR: Ballenger et al**

SUMMARY: Amends the Occupational Safety and Health Act of 1970.

STATUS:

04/15/1999 INTRODUCED.

04/15/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

05/06/1999 In HOUSE Committee on EDUCATION AND THE WORKFORCE: Referred to Subcommittee on WORKFORCE PROTECTIONS.

AIHA NOTE: Requires proposed rulemaking to include what industries will be regulated and cost and risk information.

**HR 1437 AUTHOR: Ballenger et al**

SUMMARY: Amends the Occupational Safety and Health Act of 1970.

STATUS:

04/15/1999 INTRODUCED.

04/15/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

05/06/1999 In HOUSE Committee on EDUCATION AND THE WORKFORCE: Referred to Subcommittee on WORKFORCE PROTECTIONS.

AIHA NOTE: Reduces penalties for employers who abate hazards in a timely manner.

**HR 1438 AUTHOR: Ballenger et al**

SUMMARY: Amends the Occupational Safety and Health Act of 1970.

STATUS:

04/15/1999 INTRODUCED.

04/15/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

04/30/1999 In HOUSE Committee on EDUCATION AND THE WORKFORCE: Referred to Subcommittee on WORKFORCE PROTECTIONS.

AIHA NOTE: Grants employers limited protection of internal safety and health audits.

**HR 1439 AUTHOR: Ballenger et al**

SUMMARY: Amends the Occupational Safety and Health Act of 1970.

STATUS:

04/15/1999 INTRODUCED.

04/15/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

05/06/1999 In HOUSE Committee on EDUCATION AND THE WORKFORCE: Referred to Subcommittee on WORKFORCE PROTECTIONS.

AIHA NOTE: Grants employers limited protection of internal H&S audits and makes changes to whistleblower protections.

**HR 1851 AUTHOR: Owens et al**

SUMMARY: Amends the Occupational Safety and Health Act of 1970 to enhance protections for employees reporting workplace hazards to the Occupational Safety and Health Administration.

STATUS:

05/18/1999 INTRODUCED.

05/18/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

06/04/1999 In HOUSE Committee on EDUCATION AND THE WORKFORCE: Referred to Subcommittee on WORKFORCE PROTECTIONS.

***AIHA NOTE: Makes changes to whistleblower protections.***

OCCUPATIONAL HEALTH AND SAFETY

APPROPRIATIONS

AIHA NOTE: AIHA has sent letters to Congress supporting OSHA and NIOSH appropriations for FY 2001.

## **OSHA COVERAGE**

**HR 776 AUTHOR: Andrews**

SUMMARY: Amends the Occupational Safety and Health Act of 1970 to provide for coverage under that Act of employees of States and political subdivisions of States.

STATUS:

02/23/1999 INTRODUCED.

02/23/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

03/12/1999 In HOUSE Committee on EDUCATION AND THE WORKFORCE: Referred to Subcommittee on WORKFORCE PROTECTIONS.

*AIHA NOTE: AIHA sent a letter in support of this legislation.*

**S 650 AUTHOR: Wellstone, Kennedy**

SUMMARY: Amends the Occupational safety and Health Act of 1970 to provide for coverage under that Act of employees of the Federal Government.

STATUS:

03/17/1999 INTRODUCED.

03/17/1999 To SENATE Committee on HEALTH, EDUCATION, LABOR, AND PENSIONS.

AIHA NOTE: AIHA sent a letter in support of this legislation

### **OSHA – VOLUNTARY PROTECTION PROGRAM**

**HR 1459 AUTHOR: Petri, Andrews**

SUMMARY: Authorizes the Secretary of Labor to establish voluntary protection programs.

STATUS:

04/15/1999 INTRODUCED.

04/15/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

05/06/1999 In HOUSE Committee on EDUCATION AND THE WORKFORCE: Referred to Subcommittee on WORKFORCE PROTECTIONS.

AIHA NOTE: AIHA sent a letter in support of this legislation.

### **ERGONOMICS**

**HR 987 AUTHOR: Blunt et al**

SUMMARY: Requires the Secretary of Labor to wait for completion of a National Academy of Sciences study before promulgating a standard or guideline on ergonomics.

STATUS:

03/04/1999 INTRODUCED.

03/04/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

06/23/1999 From HOUSE Committee on EDUCATION AND THE WORKFORCE:  
Recommended favorably.

08/03/1999 Passed HOUSE? To SENATE.

08/04/1999 To SENATE Committee on HEALTH, EDUCATION, LABOR AND  
PENSIONS.

AIHA NOTE: AIHA sent a letter opposing this legislation.

**S 1070 AUTHOR: Bond et al**

SUMMARY: Requires the Secretary of Labor to wait for completion of a National Academy of Sciences study before promulgating a standard, regulation or guideline on ergonomics.

STATUS:

05/18/1999 INTRODUCED.

05/18/1999 To SENATE Committee on HEALTH, EDUCATION, LABOR, AND  
PENSIONS.

AIHA NOTE: AIHA sent a letter opposing this legislation.

**REGULATORY REFORM**

**HR 574 AUTHOR: Pombo et al**

SUMMARY: Requires peer review of scientific data used in support of Federal regulations.

STATUS:

02/04/1999 INTRODUCED.

02/04/1999 To HOUSE Committees on GOVERNMENTAL REFORM and  
SCIENCE.

02/18/1999 In HOUSE Committee on GOVERNMENT REFORM: Referred to Subcmt on  
NATIONAL ECONOMIC GROWTH, NATURAL RESOURCES & REGULATORY  
AFFAIRS

**HR 1074 AUTHOR: Bliley et al**

INTRODUCED: 03/11/1999

SUMMARY: Directs the President to submit annually to the Congress an accounting statement and associated report of an estimate of the total annual costs and benefits of Federal regulatory programs in the aggregate, an analysis of direct and indirect impacts of Federal rules and paperwork on Federal, State, local, and tribal government, the private

sector, small business, wages, consumer prices, productivity, economic growth, and distributional effects.

STATUS:

03/11/1999 INTRODUCED.

03/11/1999 To HOUSE Committee on GOVERNMENT REFORM.

05/19/1999 From HOUSE Committee on GOVERNMENT REFORM:  
Recommended favorably with amend in the nature of a substitute.

07/26/1999 Amendment proposed on HOUSE floor. Amendment HA345

07/26/1999 Amendment agreed to on HOUSE floor. Amendment HA345

07/26/1999 Amendment proposed on HOUSE floor. Amendment HA346

07/26/1999 Amendment failed on HOUSE floor. Amendment HA346

07/26/1999 Committee amendment adopted in the nature of a substitute on HOUSE Floor.

07/26/1999 Passed HOUSE. ? To SENATE.

07/27/1999 To SENATE Committee on GOVERNMENTAL AFFAIRS.

**HR 2639 AUTHOR: Bonilla et al**

SUMMARY: Establishes peer review for the review of standards promulgated under the Occupational Safety and Health Act of 1970.

STATUS:

07/29/1999 INTRODUCED.

07/29/1999 To HOUSE Committee on EDUCATION AND THE WORKFORCE.

09/10/1999 In HOUSE Committee on EDUCATION AND THE WORKFORCE: Referred to Subcommittee on WORKFORCE PROTECTIONS.

**HR 3311 AUTHOR: Gekas**

SUMMARY: Provides for analysis of major rules; promotes the public's right to know the costs and benefits of major rules; increases the accountability and quality of Government.

STATUS:

11/10/1999 INTRODUCED.

11/10/1999 To HOUSE Committee on JUDICIARY.

11/10/1999 Additionally referred to HOUSE Committee on COMMERCE.

11/19/1999 In HOUSE Committee on JUDICIARY: Referred to Subcommittee on COMMERCIAL AND ADMINISTRATIVE LAW.

**HR 3521 AUTHOR: McIntosh**

INTRODUCED: 01/27/2000

SUMMARY: Provides for a report by the General Accounting Office to Congress on agency regulatory actions.

STATUS:

01/27/2000 INTRODUCED.

01/27/2000 To HOUSE Committee on JUDICIARY.

01/27/2000 Additionally referred to HOUSE Committee on GOVERNMENT REFORM.

**S 59 AUTHOR: Thompson et al**

SUMMARY: Provides Government wide accounting of regulatory costs and benefits.

STATUS:

01/19/1999 INTRODUCED.

01/19/1999 To SENATE Committee on GOVERNMENTAL AFFAIRS.

**S 746 AUTHOR: Abraham, Rockefeller**

INTRODUCED: 03/25/1999

SUMMARY: Provide for analysis of major rules, to promote the public's right to know the costs and benefits of major rules, and to increase the accountability of quality of Government.

STATUS:

03/25/1999 INTRODUCED.

03/25/1999 To SENATE Committee on GOVERNMENTAL AFFAIRS.

05/20/1999 From SENATE Committee on GOVERNMENTAL AFFAIRS:  
Recommended favorably with amendment.